

0069351

SAF-RC-001
Industrial Hygiene Sampling
FINAL DATA

NO DISTRIBUTION REQUIRED

COMMENTS:

SDG 06I-0510-01 SAF-RC-001

Rad only ☒ Chem only Rad & Chem

☒ Complete Partial

300 Area 333 Bldg

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Cover Page

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Report Identification Number: 06I-0510-01
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF#: RC-001 / R33300J451
Payroll#: 72520



Sample Information

Sample Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
06 Feb 2006	J113M3	06I04255	NMAM 7300M	G061700X	MCE
06 Feb 2006	J113M4	06I04256	NMAM 7300M	G061700X	MCE
06 Feb 2006	J113M5	06I04257	NMAM 7300M	G061700X	MCE
06 Feb 2006	J113M6	06I04258	NMAM 7300M	G061700X	MCE

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Name: Joanna C. Sanchez
Title: Chemist
Date: February 10, 2006

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Case Narrative Page

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General Set Information: There are 4 samples in set 06I-0510-01 which were analyzed for beryllium, lead and cadmium on MCE filter. No problems were encountered with the receipt of these samples and no contact with the CTR was required.

Method Summary: Samples were transferred to 50 ml centrifuge tubes and digested in the presence of 10 mL of 1:1 (v/v) nitric acid. Samples were digested in a hot block set at 110°C for 40 minutes. Samples were then diluted to a 25 mL volume with ASTM Type II Water. Samples were shaken and delivered for ICP analysis.

Sample Preparation: All samples were prepared in accordance with DCL SOP "IH-AN-021" and NIOSH method NMAM 7300 modified for hot block digestion.

Holding Times: The holding times were met for both sample preparation and analysis.

Instrument Calibration: Instrument calibration was performed in accordance with NIOSH method NMAM 7300.

Initial and Continuing Calibration Verification Analysis: Beryllium, cadmium and lead recoveries in all Initial Calibration Verification (ICV) and Continuing Calibration Verification (CCV) samples are within the quality control limits of +/- 10%.

Initial and Continuing Calibration Blank Analysis: No beryllium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Limit of Quantitation (LOQ) of 0.01 ug/sample. No cadmium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Limit of Quantitation (LOQ) of 0.08 ug/sample. No lead results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Limit of Quantitation (LOQ) of 1. ug/sample.

Method Blank Analysis: No beryllium, cadmium or lead was found in the media blank sample above the Contract Required Detection Limit (CRDL).

Dilution(s): NA.

Laboratory Control Sample and Duplicate Analysis: One Laboratory Control Sample (LCS) and one Laboratory Control Sample Duplicate (LCSD) were prepared and analyzed with the sample batch. The LCS result was within the control limit of +/- 20%. The Relative Percent Differences (RPD) between the LCS and the LCSD was within the control limit of 20%.

Replicate Analysis: One sample was replicated with this analysis run. The RPD between the sample and the replicate was within the control limit of 20%. If the result of the sample or replicate is below the CRDL, replicate analysis is negligible.

Flagging Codes: None

Nonconformance/Corrective Action Report (NC/CAR): N/A

Sample Calculation: The final results are calculated by the following equation:

Final result for aqueous samples ($\mu\text{g}/\text{sample}$) = (A) x (B) x (C)

Where:

A = Analyte concentration from instrument determination ($\mu\text{g}/\text{L}$)

B = Concentration factor from sample preparation

= $\frac{\text{Final Volume of Digestate (L)}}{\text{Sample}}$

C = Dilution performed at time of analysis

Example Calculation: $(1 \mu\text{g}/\text{L}) \times (0.025 \text{ L}/\text{sample}) \times (1) = 0.025 \mu\text{g}/\text{sample}$

Miscellaneous Comments: None.



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 Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
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 SAF#: RC-001 / R33300J451
 Payroll#: 72520

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Beryllium µg/sample		Beryllium µg/m³		Air Volume L	
J113M3	06I04255	08 Feb 2006	<0.01	U	**		**	
J113M4	06I04256	08 Feb 2006	<0.01	U	**		**	
J113M5	06I04257	08 Feb 2006	<0.01	U	<0.015	U	689.	
J113M6	06I04258	08 Feb 2006	<0.01	U	<0.017	U	577.	
Limit of Detection (LOD)			0.01					
Required Detection Limit (RDL)								

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Lead µg/sample		Lead µg/m³		Cadmium µg/sample	
J113M3	06I04255	08 Feb 2006	<1.	U	**		<0.08	U
J113M4	06I04256	08 Feb 2006	<1.	U	**		<0.08	U
J113M5	06I04257	08 Feb 2006	1.9		2.7		0.13	
J113M6	06I04258	08 Feb 2006	<1.	U	<1.7	U	<0.08	U
Limit of Detection (LOD)			1.				0.08	
Required Detection Limit (RDL)								

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Cadmium µg/m³	
J113M3	06I04255	08 Feb 2006	**	
J113M4	06I04256	08 Feb 2006	**	
J113M5	06I04257	08 Feb 2006	0.19	
J113M6	06I04258	08 Feb 2006	<0.14	U
Limit of Detection (LOD)				
Required Detection Limit (RDL)				

U - Parameter not detected above LOD.
 J - Parameter between LOD and RDL.

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QC Summary Page

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Report Identification Number: 06I-0510-01
 Subcontract Number: 0000X-BO-G0058-B-Mod#4
 Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
 Laboratory Identification Number: DCHM
 SAF: RC-001 / R3330 J451
 Payroll#: 72520

Batch ID: G061700X

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-241082-1	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
BL-241082-1	MB	Lead	µg/sample	ND	NA	NA	NA	NA
BL-241082-1	MB	Cadmium	µg/sample	ND	NA	NA	NA	NA
QC-241082-1	LCS	Beryllium	µg/sample	11.0	NA	10.0	110.	NA
QC-241082-1	LCS	Lead	µg/sample	110.	NA	100.	110.	NA
QC-241082-1	LCS	Cadmium	µg/sample	33.7	NA	30.0	112.	NA
QD-241082-1	LCSD	Beryllium	µg/sample	10.9	11.0	10.0	109.	0.639
QD-241082-1	LCSD	Lead	µg/sample	108.	110.	100.	108.	1.35
QD-241082-1	LCSD	Cadmium	µg/sample	33.4	33.7	30.0	111.	0.818

MB - Method Blank
 LCS - Laboratory Control Sample
 LCSD - Laboratory Control Sample Duplicate
 MS - Matrix Spike
 MSD - Matrix Spike Duplicate
 LD - Laboratory Duplicate

NA - Not Applicable
 ND - Parameter not detected above LOD

LCS, LCSD Percent Rec. = (Result / Target) * 100.0
 MS, MSD Percent Rec. = ((Result - Parent) / Target) * 100.0

LCS, LCSD Relative Percent Diff. = ((|LCS - LCSD|) / ((LCS + LCSD)/2.0)) * 100.
 MS, MSD Relative Percent Diff. = ((|MS - MSD|) / ((MS + MSD)/2.0)) * 100.
 LD Relative Percent Diff. = ((|Parent - LD|) / ((Parent + LD)/2.0)) * 100

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00-0510-01

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST											
Collector: C.J. Williams		Company Contact: Denise A. Pitts and Henry W. Ruby		Telephone No. 531-1229		Project Coordinator: Joan H. Kestner		Data Turnaround: 24 hrs			
Payroll #: 78520		Sampling Location: 300 ams-1335 8106		SPECIAL INSTRUCTIONS: All relevant COAs must be provided: 9333003451		SAF No. RC-001					
Type of Sample: personals		Wipe Sample Media: <input type="checkbox"/> Yes <input type="checkbox"/> No		ANALYSIS METHOD (SPECIFIC): NIOSH 7300		Method of Shipment: Fed Ex					
Shipped To: DataChem Salt Lake City UT		Bill of Lading/Air Bill No. 8544 9435 4748									
POSSIBLE SAMPLE HAZARD/REMARKS: Be careful Pb		Preservation (i.e., cooling required, etc.):									
Special Handling and/or Storage: N/A		MATRIX: A AIR W1 WIPE X OTHER									
SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area (sq. ft.)	Comments	Asbestos Airborne	Lead Airborne	Beryllium Airborne	Mold	Lead Wipe	Cd Wipe	Cd Airborne
J113m3	A	2-6-06	blanks		X	X	X				X
J113m4			blanks		X	X	X				X
J113m5			1089		X	X	X				X
J113m6	A	2-6-06	577		X	X	X				X

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WCH-SH-202 (06/29/2005)

Enter on line below the first Sample Number from Page One:

J-113m3

[illegible]

REVIEWED BY: _____ DATE: 10-1-69

PRINTSIGN NAME _____

Page 2 of 2

Enter on line below the first Sample Number from Page One:

J113M3

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			
SIGN / PRINT NAMES / USE MILITARY TIME			
Relinquished By/Store:	DATE / TIME	Received By/Store:	DATE / TIME
Cynthia Williams			
Cynthia Williams	2-6-06 / 1630	3746 Bldg Rm 16 locked cabinet	2-6-06 / 1400
Relinquished By/Store:	DATE / TIME	Received By/Store:	DATE / TIME
locked cabinet 3746 Bldg Rm #16			
Goldie Malhan	02-07-06 / 1430	RZ Steffler RZ Steffler	2-7-06 / 1430
Relinquished By/Store:	DATE / TIME	Received By/Store:	DATE / TIME
RZ Steffler RZ Steffler	2-7-06 / 1530	Fed Ex	
Relinquished By/Store:	DATE / TIME	Received By/Store:	DATE / TIME
Relinquished By/Store:	DATE / TIME	Received By/Store:	DATE / TIME
Relinquished By/Store:	DATE / TIME	Received By/Store:	DATE / TIME
Relinquished By/Store:	DATE / TIME	Received By/Store:	DATE / TIME
Relinquished By/Store:	DATE / TIME	Received By/Store:	DATE / TIME
LABORATORY SECTION	Received By	Title	DATE / TIME

REVIEWED BY:

PRINT/SIGN NAME

DATE: